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EXAMINER

HUA, LY

ART UNIT

PAPER NUMBER

2135

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4

Please find below and/or attached an Office communication concerning this application or proceeding.

84

Office Action Summary

Application No.

09/742,394

Applicant(s)

LAGOSANTO ET AL.

Examiner

Ly V. Hua

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION**Specification**

1. The applicant is to fill in the blank space for the application serial number in page 8 of the specification.

Claim Objections

2. The application is hereby notified of the misspelled word “invokation” occurs at various places in the claims.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a. With regard to claim 1:
 - i The phrase “reading from said first device a first set of information that is published on the network to provide clients with access to the service” is confusing in that:
 - (1) the direct object being provided is not clear;
 - (2) the direct object being provided to the indirect object (clients) appears to be missing – [notice that if the prepositional phrase “with access to the service” is used as a noun for the direct object, then the usage of such is of idiomatic problem, which problem is also of 35 USC 112, second paragraph];
 - (3) it is not clear as to how reading the first set could possibly provide the clients the missing direct object; and
 - (4) the subordinate clause “that is published on the network” (used to modify the first set of information) has not been isolated with correct punctuations around it;
 - ii The phrase “reading from said first device ... an address ... to provide clients with access to the service” is also confusing in that:
 - (1) the direct object being provide is not clear;
 - (2) the direct object being provide to the indirect object (clients) is missing– [notice that if the prepositional phrase “with access to the service” is used as a noun for the direct object, then the usage of such is of idiomatic problem, which problem is also of 35 USC 112, second paragraph];
 - (3) it is not clear as to how reading the address could possibly provide the clients the missing direct object; and
 - (4) it is not clear which one of the following should be a correct interpretation:
 - (a) the address is read and is provided to the clients or
 - (b) the second set of information is published and is provided to the clients.
 - iii Who (or what that is which) is to do the reading step is not clear.
 - iv Who (or what that is which) is to do the using step is not clear.
 - v Who (or what that is which) is to do the publishing step is not clear.
 - b. With regard to claims 2-10:
 - i These claims depend on claim 11 and thus inherit the problems of indefiniteness therefrom.
 - c. With regard to claim 2:
 - i It is not clear how the state of being (that is the definition of the sets of information) can possibly affect the steps of (or add steps to) the method being set forth in claim 1.

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- d. With regard to claim 10:
 - i Since decrypting a set of encrypted information can produce a set of original information, it is not clear as to how it can be possible that decrypting a second set of encrypted information can validating the second set.
 - (1) It appears that an essential step is missing from the recitation of claim 10.
- e. With regard to claim 11:
 - i Who (or what that is which) is to do each of the reading and using steps is not clear.
- f. With regard to claims 12 and 13:
 - i These claims depend on claim 11 and thus inherit the problems of indefiniteness therefrom.
- g. With regard to claim 14:
 - i The phrase "a first set of information that is published on the network to provide clients with access to the service provided by said application program" is confusing in that:
 - (1) the direct object being provided is not clear;
 - (2) the direct object being provided to the indirect object (clients) appears to be missing – [notice that if the prepositional phrase "with access to the service" is used as a noun for the direct object, then the usage of such is of idiomatic problem, which problem is also of 35 USC 112, second paragraph];
- h. With regard to claims 15-18:
 - i These claims depend on claim 11 and thus inherit the problems of indefiniteness therefrom.

Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
- 6. Claims (1, 11, 14, 19, 24 and 26), (claims 2, 12, 15, 25 and 27), (claims 3, 7, 16, 17 and 20), (claims 4-6, 13, 21-23, and 28), and (claims 7 and 3) are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art [Applicant's Background of the Invention] in view of Rezvani et al (6,686,838).
 - a. As to claim 1:
 - i Claim 1 claims a method
 - (1) for providing services on a distributed computing network,
 - (2) comprising the steps of:
 - (a) connecting a first device containing an application associated with a service to a distributed computing network;
 - (b) reading from said first device a first set of information that is published on the network to provide clients with access to the service, and an address associated with a second set of information that is published on the network to provide clients with access to the service;
 - (c) using said address to read said second set of information from a second device connected to the network; and

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- (d) publishing a service bundle on said network that contains at least some of the information from each of said first and second sets of information.
- ii With regard,
 - (1) to the first set of information (e.g., applets, protected data, funds)
 - (a) obtainable [by reading, uploading or downloading]
 - (i) by the network [or more specifically and directly by an interface to which the first device is inserted],
 - (ii) from the first device (e.g., a smart-card, PDA, camera or pager, electronic purse),
 - 1) which first device readily lends itself to be used in a distributed computing environment (as have been admitted by the applicant in the background section of the specification),
 - (2) a skilled person in the art would have known that any set of information stored in a memory of such device can be readily retrievable by an interface to which it is connected.
 - iii With regard,
 - (1) to the publication/printing of information being obtained,
 - (2) the skilled person would have also known that
 - (a) an interfaced computer
 - (i) to which a smart-card (PDA, camera or pager, electronic purse) is connected and
 - (ii) can readily obtains information sets from a plurality of resources to which it is connected/communicated and
 - (iii) can publishes/printing out a bundle of those information sets.
 - iv The heart of applicant's claimed method in claim 1:
 - (1) storing an address/URL, (instead of downloadable objects), in memory (of limited space) of the first device so that the interface (to which the first device is connected) can obtain such URL and use it to download the object form elsewhere in a network.
 - v Rezvani et al (6,686,838) teaches [Detailed Description Text --(DETX (55))] a concept for applicant's a method in that Rezvani et al teaches
 - (1) a module 28 [in a network]
 - (a) obtains
 - (i) from device 32 [first device]
 - (ii) a URL (providing a link to downloadable object)
 - (b) acquires
 - (i) from network 16
 - (ii) the downloadable object .
 - vi It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:
 - (1) use
 - (a) the concept of Rezvani et al
 - (b) in a method
 - (i) for providing services on a distributed computing network -- {which provision is well known in the art},
 - vii The skilled person would have been motivated to make use of such concept of Rezvani in such a method because:
 - (1) the memory of the first device (being a smart-card, PDA, camera, pager, etc.) is of limited space -- {which limitation of memory is well known in the art};
 - (2) the storing of the URLs (instead of the downloadable objects) in the memory of the first device allows the device to which the first device is attached to obtain various type of downloadable objects as taught by Rezvani..

b. As to claims 11, 14, 19 and 26:

- i Claim 11 claims a method
 - (1) for providing services via a smart card on a distributed computing network,

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- (2) comprising the steps of:
 - (a) placing a smart card containing an application that is associated with a service in communication with a first device on the network;
 - (b) reading an address from the smart card;
 - (c) using said address to obtain a proxy for said application from a second device on the network; and
 - (d) executing said proxy on said first device to thereby enable said first device to operate as a gateway which receives calls for said application from clients on the network and converts said calls into commands that are transmitted to the card for processing by said application.
- ii Claim 14 claims a portable service provider
 - (1) that is connectable to a distributed computing network,
 - (2) said portable service provider including
 - (a) a memory having stored therein:
 - (i) an application program that provides services to clients via said network;
 - (ii) a first set of information that is published on the network to provide clients with access to the service provided by said application program; and
 - (iii) an address for a location on the network at which is stored a second set of information that is published on the network to provide clients with access to said service.
- iii Claims 19 and 24 claim:
 - (1) 19. A distributed computing network, comprising:
 - (a) a first device that publishes information that enables clients on said network to access services available via said network;
 - (b) a second device that stores a first portion of said information; and
 - (c) a third device that communicates with a portable service provider containing an application that provides services via said network,
 - (i) said third device being operable to
 - 1) retrieve a second portion of said information from said portable service provider,
 - 2) read an address stored in said portable service provider that identifies a location at which said first portion of said information is stored,
 - 3) retrieve said first portion of said information stored at said address, and
 - 4) provide said first and second portions of said information to said first device for publication on the network.
 - (2) 24. The distributed computing network of claim 19, wherein said third device combines the retrieved first and second portions of information into a service bundle that is provided to said first device for publication.
- iv Claim 26 claims a distributed computing network, comprising:
 - (1) a first device
 - (a) that stores
 - (i) a proxy
 - 1) for an application stored on a portable service provider; and
 - (2) a second device
 - (a) that communicates with a portable service provider, and
 - (b) that is operable to
 - (i) read an address stored in said portable service provider that identifies a location at which said proxy is stored,
 - (ii) retrieve said proxy stored at said address, and
 - (iii) execute said proxy to function as a gateway which
 - 1) receives calls for said application from clients on the network and
 - 2) converts said calls into commands that are transmitted to said portable service provider for processing by said application.

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- v Generally these claims 11, 14, 19, 24 and 26 have limitations that are similar to those of claim 1 and have been addressed above in the rationale for rejecting claim 1.
 - vi Particularly the heart of applicant's claimed invention as presented in claims 1, 11, 14, 19, 24 and 26 is:
 - (1) storing an address/URL, (instead of downloadable objects), in memory (of limited space) of the first device so that the interface (to which the first device is connected) can obtain such URL and use it to download the object from elsewhere in a network,
 - (2) which particularity has been addressed above in the rationale for rejecting claim 1.
- c. As to claims 2, 12, 15, 25 and 27:
- i Claim 2 claims:
 - (1) 2. The method of claim 1 wherein
 - (a) said first set of information contains data which is specific to the implementation of the application on said first device, and
 - (b) said second set of information contains data which is generic to multiple implementations of the application.
 - ii Claim 12 claims:
 - (1) 12. The method of claim 11 wherein
 - (a) said first device is a terminal to which said smart card is physically connected.
 - iii Claim 15 claims:
 - (1) 15. The portable service provider of claim 14 wherein
 - (a) said first set of information contains data which is specific to the implementation of the application on said service provider, and
 - (b) said second set of information contains data which is generic to multiple implementations of the application.
 - iv Claim 25 claims:
 - (1) 25. The distributed computing network of claim 19 wherein
 - (a) said first portion of said information comprises data which is generic to multiple implementations of said application, and
 - (b) said second portion of said information comprises data that is specific to the implementation of the application on a given portable service provider.
 - v Claim 27 claims:
 - (1) 27. The distributed computing network of claim 26 wherein
 - (a) the portable service provider is a smart card and
 - (b) said second device is a terminal to which a smart card can be connected.
 - vi Since these claims 2, 12, 15, 25 and 27 define the definitions for the sets information recited in the method claim 1,
 - (1) which definition of the terms
 - (a) does not affect the steps (nor add further step) to the method, and
 - (b) does not add further component to the network (but rather is an obvious substitution of one component for another component),
 - (2) claims 2, 25 and 27 are thus rejected together with claim 1 and 19.
- d. As to claims 3, 7, 16, 17 and 20:
- i Claims 3, 7, 16, 17 and 20 claim:
 - (1) 3. The method of claim 1 wherein said first device is a smart card.

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- (2) 7. The method of claim 1 wherein said first device is a personal digital assistant.
 - (3) 16. The portable service provider of claim 14 wherein said service provider is a smart card
 - (4) 17. The portable service provider of claim 14 wherein said service provider is a personal digital assistant.
 - (5) 20. The distributed computing network of claim 19 wherein said portable service provider is a smart card, and said third device is a terminal to which a smart card can be connected.
- ii It would have been obvious to a person having ordinary skill in the art at the time the invention was made to realized that us either a mart card or a PDA (or any memory-limited, digital information processing device) as an element in Rezvani's first device 32.
 - iii The skilled person would have been motivated to come to such realization because both mart card and PDA are made connectable to interfacing computers such as Rezvani's module 28.
- e. As to claims 4-6, 13, 21-23, and 28:
- i Claims 4-6 claim:
 - (1) .4. The method of claim 3
 - (a) wherein said smart card is connected to the network by means of a terminal, and
 - (b) wherein some of the information read from said second device comprises a proxy for said application, and
 - (c) further including the step of
 - (i) executing
 - 1) said proxy
 - 2) in said terminal
 - 3) to enable said terminal to function
 - a) as a gateway for the application on the network.
 - (b) .5. The method of claim 4 wherein said proxy operates to convert calls
 - i) received from clients via the network
 - ii) into commands that are appropriate to the application.
 - (d) .6. The method of claim 5 wherein
 - (i) said application is written in an object-oriented program language, and
 - (ii) said proxy converts requests for remote method invocation into low-level commands for communication with a smart card.
 - ii Claim 13 claims:
 - (1) 13. The method of claim 11 wherein
 - (a) said application is written in an object-oriented program language, and
 - (b) said proxy converts requests for remote method invocation into low-level commands for communication with a smart card.
 - iii Claims 21-23 claim:
 - (1) .21. The distributed computing network of claim 20 wherein some of the information contained in said first portion comprises a proxy for said application, and said terminal executes said proxy to function as a gateway for the application on the network.
 - (2) .22. The distributed computing network of claim 21 wherein said proxy operates to convert calls received from clients via the network into commands that are appropriate to the application.
 - (3) .23. The distributed computing network of claim 22 wherein said application is written in an object-oriented program language, and said proxy converts requests for remote method invocation into low-level commands for communication with a smart card.
 - iv Claim 28 claims:

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- (1) 28. The distributed computing network of claim 26, wherein said application is written in an object-oriented program language, and said proxy converts requests for remote method invocation into low-level commands for communication with a portable service provider.
- v Rezvani teaches that [Detailed Description Text – DETX (55)]
 - (1) his device 32 is connected to the rest of his network by means of a terminal (see Fig. 1 for the connection);
 - (2) his downloadable object (retrievable from a URL) may be executed and may take responsibility
 - (a) for running a corresponding first device or
 - (b) for performing any suitable functions,
 - (3) executing the downloadable object.
- f. As to claims 7 and 3:
 - i Claims 7 and 3 claim:
 - (1) .3. The method of claim 1 wherein said first device is a smart card.
 - (2) .7. The method of claim 1 wherein said first device is a personal digital assistant.
 - ii It would have been obvious to a person having ordinary skill in the art at the time the invention was made to realized that us either a mart card or a PDA (or any memory-limited, digital information processing device) as an element in Rezvani's first device 32.
 - iii The skilled person would have been motivated to come to such realization because both mart card and PDA are made connectable to interfacing computers such as Rezvani's module 28.
7. Claims 8-9, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art [Applicant's Background of the Invention] and Rezvani et al (6,686,838) as applied to claims 1 and 14 above, further in view of Goldstein et al (6,216,227) .
 - a. As to claims 8-9, 18:
 - i Claims 8-9 claim:
 - (1) .8. The method of claim 1 further including the step of
 - (a) validating
 - (i) said second set of information
 - (ii) with information
 - 1) stored in said first device
 - (iii) prior to publishing said service bundle.
 - (2) .9. The method of claim 8 wherein
 - (a) said second set of information includes a digital signature, and
 - (b) said validating step comprises
 - (i) authentication
 - 1) of said signature
 - 2) by means of a key {first information}
 - a) stored on said first device.
 - ii Claim 18 claims:
 - (1) 18. The portable service provider of claim 14 wherein said memory further stores a private key for validating said second set of information.

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iii With respect to claims 8, 9 and 18:

(1) Goldstein et al (6,216,227) teaches:

(a) a concept such as used in applicant's claims 8 and 9, particularly

(i) validating

1) said second set of information,

a) which second set of information includes a digital signature,

2) with information {first information}

a) stored in said first device

3) which validating comprises

a) authentication

i) of the digital signature included in said second set of information

ii) by means of a key {first information} stored on said first device;

(b) in that Goldstein teaches the following:

(i) Detailed Description Text - DETX (20): Each of tickets 212, 214, 216 and 222 includes a ticket signature (represented by the numerals 212a, 214a, 216a and 222a) generated by ticket loader 104 with a key of the corresponding venue. In an embodiment of the invention using public key encryption (PKE) and asymmetric key pairs, and where venue keys 210a, 220a are public venue keys, the ticket signatures are generated using the private keys corresponding to the public keys. In an alternative embodiment using symmetric keys (e.g., DES), ticket loader 104 signs issued tickets with a copy of venue keys 210a, 220a. As mentioned above, when a ticket is loaded onto smart card 100, the corresponding venue applet validates the ticket by authenticating the ticket signature with its venue key.

(ii) Detailed Description Text - DETX (41): In state 414, venue applet 210 validates downloaded ticket 212 by authenticating signature 212a with venue key 210a and respond with a message indicating success or failure. In an alternative embodiment of the invention, a second venue key, different from venue key 210a is stored with venue applet 210 for the purpose of validating downloaded tickets.

(2) It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(a) use Goldstein's concept (of using a set information read from a device to validate a of information downloaded from a source) to validate the downloadable object arrived at the interface to which the first device (e.g., smart card or PDA) is connected.

(3) The skilled person would have been motivated to utilize such concept of Goldstein in the obvious invention of claim 1 because:

(a) the first device (e.g., smart card) used in the invention of claim 1 is similar to that of Goldstein, and

(b) the first device used in the invention of claim calls for security protect of information accesses therefrom; and

(c) the technique of validation of Goldstein permit usage of applets stored in the smart card to validate downloadable information.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art [Applicant's Background of the Invention], Rezvani et al (6,686,838) and Goldstein et al (6,216,227) as applied to claim 8 above, further in view of Franklin et al (6,055,518).

a. As to claim 10:

i Claim 10 claims:

(1) .10. The method of claim 8 wherein

(a) said second set of information is encrypted, and

(b) said validating step comprises

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- (i) decrypting
 - 1) said information
 - 2) using a key stored on said first device.
- ii With respect to claim 10:
 - (1) Franklin et al (6,055,518) teaches [Claims Text - CLTX (8)] the claimed technique for validating in that Franklin teaches one of the existing techniques for validating a set of information, particularly Franklin teaches:
 - (a) that a distributed protocol
 - (i) requires that servers
 - 1) validate
 - a) said monetary bids
 - b) by decrypting
 - i) said encrypted monetary bids
 - ii) using said private keys.
 - (2) It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use one of the known technique (such as that of Franklin) for validating the downloaded information.
 - (3) The skilled person would have been motivated to use the validating technique of Franklin because:
 - (a) it is one of the way in which encrypted information can be validated; and
 - (b) the first device (e.g. a smart-card or a PDA), such as ones (in applicant's Background of the Invention section) suitable for service platform, is inherently associated with security features and assurance that only authorized entity have access to funds/data/formation.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly V. Hua whose telephone number is (703) 305-9684. The examiner can normally be reached on Monday to Friday from 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Kim, can be reached on 703-305-4303. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ly V. Hua
Primary Examiner
Art Unit 2135

Lvh
June 12, 2004